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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,645	09/30/2003	Julian Mitchell	16077IDUS01U	6074
23644 7590 06/04/2008 BARNES & THORNBURG LLP P.O. BOX 2786 CHICAGO, IL 60690-2786			EXAMINER WHIPPLE, BRIAN P	
			ART UNIT 2152	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent-ch@btlaw.com

Office Action Summary	Application No. 10/675,645	Applicant(s) MITCHELL ET AL.	
	Examiner Brian P. Whipple	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-27, 29-31, 33-40, 42, 43 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-27, 29-31, 33-40, 42, 43 and 45-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 20-27, 29-31, 33-40, 42-43, and 45-47 are pending in this application and presented for examination.

Response to Arguments

2. Applicant's arguments filed 4/21/08 have been fully considered but they are not persuasive.

3. The following paragraphs (4. - 8.) are directed to arguments presented for claim 20 by Applicant.

4. Applicant argues that Forslow, Donovan, and Daude fail to disclose only a single VPN gateway being needed. Examiner respectfully disagrees. Daude discloses a single VPN gateway being provided (see the previously presented rejection of claim 20 below).

5. Applicant argues that each home agent uses public IP addresses rather than the address space of its respective M-VPN. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. Applicant argues Forslow, Donovan, and Daude fail to disclose each home agent using public IP addresses. Examiner respectfully disagrees. Donovan discloses the use of public IP addresses (see the previously presented rejection of claim 20 below).

7. Applicant argues against modification of the Forslow reference (see pages 11-12). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Forslow by using an addressing scheme in a data network that differs from a VPN and enabling communications via address translation between the data network and the VPN as taught by Donovan in order to expand communications between networks using disparate addressing schemes for purposes such as

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expanding telephone communications to regions that use high speed data networks such as intranets and the Internet as opposed to traditional VPN service across public switched telephone network (Donovan: [0003]; [0007] – [0009]). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. Applicant argues (see page 12, paragraph 2) about public versus private IP addresses. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. As to claims 21-22 and 24, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 20-27, 29-31, 33-40, 42-43, and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow, U.S. Publication No. 2002/0133534 A1, in view of Donovan et al. (Donovan), U.S. Publication No. 2002/0057786 A1, and further in view of Daude et al. (Daude), U.S. Publication No. 2004/0088542 A1.

12. As to claim 20, Forslow discloses a communication system (Abstract, ln. 1-4) comprising:

a plurality of virtual private networks (VPNs) interconnected by a first data network (Fig. 2-3; [0103], ln. 9-12; [0107]; [0110], ln. 3-6; Mobile nodes 3a and 3b may belong to different mobile virtual private networks, but are connected across the access network 9.);

a second data network connected to the plurality of VPNs via the first data network (Fig. 1; [0106]; [0138]; Mobile nodes 3c and 3d belonging to Intranets 6c and 6d may communicate across the Internet 6, and then to mobile nodes 3a and 3b via the access network 9. Therefore, the Intranets 6c and 6d are connected to the mobile virtual private networks of 3a and 3b via access network 9. Hence, the Intranets are data networks connected to the plurality of VPNs via the access network, which is a first data network.); and

a VPN media proxy interfacing the first and second data networks (Fig. 1; [0104]; Communications between the first and second data networks are connected as discussed above. Home agent 1 is placed between the communications of access network 9 and Internet 6. Additionally, virtual home agents 1a and 1b are internal to home agent 1 and are each given a public IP address in order to receive packets intended for members of their respective physical or virtual home network. Therefore, the home agent acts as a VPN media proxy.).

Forslow is silent on the second data network using a network addressing scheme that is different to a network addressing scheme used by at least one of said plurality of VPNs; and

the VPN media proxy being configured to pass information from a source address in said at least one of said plurality of VPNs to a destination address in said second data network, the VPN media proxy having an address translator arranged to translate the destination address of the information in accordance with the network addressing scheme of the second data network, and to send the information towards the translated destination address in the second data network.

However, Donovan discloses a data network using a networking address scheme that is different to a network addressing scheme used by a VPN (Fig. 2; [0010]; The IP network uses the IP address scheme that is different to the PSTN network addressing scheme used by the VPN.); and

the VPN media proxy ([0017], ln. 8-14 and 17-20; [0023], ln. 4-7; Multiple devices perform protocol translation to provide addressing between the IP and PSTN networks. Therefore, they act as media proxies within the VPN.) is configured to pass information from a source address in said VPN to a destination address in said data network (Fig. 2; [0017], ln. 17-20; Communications may be passed from telephone 43 from behind PSTN 37 to IP Phone 65 in IP Network 47. Therefore, the information is passed from a source address in the VPN

to a destination address in the data network.), the VPN media proxy having an address translator arranged to translate the destination address of the information in accordance with the network addressing scheme of the data network (Fig. 2; [0017], ln. 17-20; [0030], ln. 4-12; Data communications may be sent between the IP Network and PSTN. Inherently, address translation must take place in order to enable such communications, as otherwise information could not be delivered to its end destination in the different addressing scheme of the intended network.), and to send the information towards the translated destination address in the data network (Fig. 2; [0010], ln. 9-11; [0017], ln. 8-14 and 17-20; [0030], ln. 4-12; Inherently, the information is sent on to the translated address as communications between telephones using traditional PSTN and IP Phones on an IP network are enabled, and therefore address translation and communication on to an end destination must take place in order to enable communications between the respective telephone users.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Forslow by using an addressing scheme in a data network that differs from a VPN and enabling communications via address translation between the data network and the VPN as taught by Donovan in order to expand communications between networks using disparate addressing schemes for purposes such as expanding telephone communications to regions that use high speed data networks such as

intranets and the Internet as opposed to traditional VPN service across public switched telephone network (Donovan: [0003]; [0007] – [0009]).

Forslow and Donovan are silent on a VPN gateway having a VPN media proxy interfacing the first and second data networks, the VPN gateway being shared by said plurality of VPNs and providing a plurality of virtual routing functions, respective ones of said plurality of virtual routing functions being connected to respective ones of said plurality of VPNs such that each virtual routing function is in the address space of a respective one of said plurality of VPNs.

However, Daude discloses a VPN gateway having a VPN media proxy interfacing the first and second data networks (Abstract), the VPN gateway being shared by said plurality of VPNs (Fig. 1; [0075]) and providing a plurality of virtual routing functions, respective ones of said plurality of virtual routing functions being connected to respective ones of said plurality of VPNs such that each virtual routing function is in the address space of a respective one of said plurality of VPNs ([0078]; if VPN networks are interconnected through connections to the VPN gateway, it may be interpreted that the VPN gateway is in the address space of each VPN, as otherwise the VPN would not be "connectable to Gateway 160").

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Forslow and Donovan by enabling interconnection between VPNs through a single VPN gateway as taught by Daude in order to enable secure,

efficient, scalable, reliable, dynamic and decentralized interconnection of VPNs (Daude: [0050]).

13. As to claim 30, 39, and 47, the claims are rejected for the same reasons as claim 20 above.

14. As to claim 21, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 20, including the address translator is arranged to translate a destination address of information being transmitted from a source address in the second data network to a destination address in said at least one of said plurality of VPNs in accordance with the network addressing scheme of said at least one of said plurality of VPNs (Forslow: Fig. 1-3; Donovan: [0017], ln. 8-14 and 17-20; [0023], ln. 4-7; [0030], ln. 4-12; Bi-directional protocol translation occurs between the IP data network and the VPN utilizing PSTN in order to enable communications between IP Phones and traditional telephones as discussed for claim 1 above.).

15. As to claims 31 and 40, the claims are rejected for the same reasons as claim 21 above.

16. As to claim 22, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 20, including a first data network is a public data network using a public Internet Protocol (IP) network addressing scheme (Forslow: Fig. 1, item 6; Donovan: Fig. 2, item 47), a second data network is a carrier data network using a private IP network addressing scheme (Forslow: [0117]; Donovan: Fig. 2, item 47; [0015]; [00023], ln. 13-15) and one or more of said plurality of VPNs uses a private IP network addressing scheme (Forslow: Abstract, ln. 4-8; [0122], ln. 1-4).

17. As to claim 23, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 22, including where more than one of the VPNs uses a private IP network addressing scheme (Abstract, ln. 4-8; [0122], ln. 1-4), some of said private IP network addressing schemes have overlapping address ranges (Abstract, ln. 4-8; [0122], ln. 1-4).

18. As to claim 24, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 22, including the carrier data network interfaces the public data network to a switched telephone network (STN) (Forslow: Fig. 1; Donovan: Fig. 2) via a trunk gateway (Forslow: Fig. 1, item 1) whose carrier data network IP address is the destination address for information being transmitted from a source address in any of the VPNs to a destination

address in the carrier data network (Forslow: [0107]; Donovan: [0006], ln. 15-16; [0017], ln. 8-14 and 17-20; [0023], ln. 4-7).

19. As to claim 25, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 24, including the STN is a public STN (PSTN) (Donovan: Abstract; Fig. 2, item 37).

20. As to claim 26, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 24, including the VPN gateway is configured to transmit call signaling information between said at least one of said plurality of VPNs and the carrier data network via the public data network (Forslow: Fig. 1; Donovan: Fig. 2; [0015]; [0017], ln. 8-14 and 17-20; [0023], ln. 4-7 and 13-15; [0030], ln. 4-12; Daude: Abstract; Fig. 1) and the VPN media proxy being configured to transmit bearer information comprising a call between said at least one of said plurality of VPNs and the carrier data network via the public data network once a call has been established in response to said transmission of call signaling information (Forslow: Fig. 1; Donovan: Fig. 2; [0017], ln. 8-14 and 17-20; [0023], ln. 4-7 and 13-15; [0030], ln. 4-12), the address translator of the VPN media proxy being configured to translate a destination address of said bearer information to the carrier data network IP address of the

trunk gateway (Forslow: Fig. 1; Donovan: Fig. 2; [0017], ln. 8-14 and 17-20; [0023], ln. 4-17 and 13-15; [0030], ln. 4-12).

21. As to claim 27, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 26, including the call signaling comprises voice over IP (VoIP) call signaling and the call comprises a VoIP call (Forslow: Abstract, ln. 19-21; Donovan: Fig. 2; [0030], ln. 4-12).

22. As to claim 29, Forslow, Donovan, and Daude disclose the invention substantially as in parent claim 20, including the address translator of the VPN media proxy is configured to provide a network address translation function to each of the virtual routing functions (Forslow: Fig. 1, items 1 and 11; [0104]; [0122]; Donovan: Abstract; [0017], ln. 8-14 and 17-20; [0023], ln. 4-7).

23. As to claims 33 and 42, the claims are rejected for the same reasons as claim 29 above.

24. As to claim 34, the claim is rejected for the same reasons as claim 22 above.

25. As to claim 35, the claim is rejected for the same reasons as claim 23 above.

26. As to claim 36, the claim is rejected for the same reasons as claim 24 above.
27. As to claims 37 and 45, the claims are rejected for the same reasons as claim 25 above.
28. As to claim 38, the claim is rejected for the same reasons as claims 26-27 above.
29. As to claim 43, the claim is rejected for the same reasons as claims 22, 24, and 26-27 above.
30. As to claim 46, the claim is rejected for the same reasons as claims 20-21 above.

Additionally, Forslow, Donovan, and Daude disclose storing the information related to translated destination and source addresses (Forslow: [0122], ln. 13-15; [0170], ln. 1-6; Donovan: [0017], ln. 8-14 and 17-20; Signaling and media gateways are known to rely on routing tables that store addresses for the purposes of routing packets throughout networks).

Conclusion

31. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Whipple whose telephone number is (571)270-1244. The examiner can normally be reached on Mon-Fri (9:30 AM to 6:00 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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5/29/08

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